



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,550	07/21/2003	Nicolas Chuberre	Q76543	3920
72875	7590	07/28/2008		
SUGHRUE MION, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037			EXAMINER NGUYEN, TOAN D	
			ART UNIT	PAPER NUMBER
			2616	
			NOTIFICATION DATE	DELIVERY MODE
			07/28/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@sughrue.com
kghyndman@sughrue.com
USPatDocketing@sughrue.com

Office Action Summary	Application No. 10/622,550	Applicant(s) CHUBERRE ET AL.	
	Examiner TOAN D. NGUYEN	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/29/08 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

3. Figure 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to because the drawing elements in figure 20 need descriptive legends. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet,

Art Unit: 2616

even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

5. Claims 1, 3-5, 7-8 and 12 are objected to because of the following informalities:

Claim 1, line 14, it is suggested to change "the IP datagram" to --- the IP datagrams ---.

Claim 3, line 19, it is suggested to change “a static” to --- the static ---.

Claim 4, line 5, it is suggested to change “the at least one section of the IP datagrams” to --- the at least one IP datagram section ---.

Claim 5, line 3, it is suggested to change “demultiplex a compressed data block” to --- demultiplex the compressed data block ---.

Claim 7, line 2, it is suggested to change “resizes IP datagram sections for transmission upon negative acknowledgement” to --- resizes the IP datagram sections for transmission upon the negative acknowledgement ---.

Claim 8, line 2, it is suggested to change “reject IP datagram sections” to --- reject the IP datagram sections ---.

Claim 12, line 2, it is suggested to change “a telecommunications network” to --- the telecommunications network ---.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. Claims 3-5, 10-11 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3, line 16, it is unclear as to what “current data frames” is referred to. The “current data frames” should change to --- the current data frames --- if it is referred to the frames coming from a mobile telecommunication network. Similar problem exists in claim 3, line 26.

Claim 3 recites the limitation "the N frames" in line 17. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the corresponding N frames" in line 18. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the corresponding current data frames" in line 21. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the states" in line 24. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the current block" in line 27. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitation "the IP datagram sections" in line 4 and line 6. There is insufficient antecedent basis for this limitation in the claim. Similar problem in claim 5, lines 6-7.

Claim 4 recites the limitation "the Ethernet network" in lines 6-7. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-2, 8-9, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motley (US 6,721,282) in view of Ferenc et al. (US 4,962,497) further in view of LoGalbo et al. (US 2002/0093928).

For claims 1, 12 and 14, Motley discloses telecommunication data compression apparatus and method, which multiplexing device comprises:

a compressor (figure 1, reference 1) adapted to provide a compressed data block representative of the various channels (col. 2, lines 41-42),

bandwidth assigned for a given transmission link being predetermined, prediction means for predicting the available bandwidth, known as the margin, taking account of the band occupied for the transmission of said compressed data block (figure 1, reference 3, col. 2, line 46).

However, Motley does not expressly disclose:

formatting means for subdividing and inserting at least one section of IP datagrams in of the time slots corresponding to the available bandwidth,

wherein the formatting means determines whether size of a section of the IP datagram is too large for insertion in the time slots based on the predicted available bandwidth.

In an analogous art, Ferenc et al. disclose formatting means for subdividing and inserting at least one section of IP datagrams in of the time slots corresponding to the available bandwidth (col. 11 lines 24-26).

One skilled in the art would have recognized the formatting means for subdividing and inserting at least one section of IP datagrams in of the time slots corresponding to the available bandwidth, and would have applied Ferenc et al.'s time slot formatter 231 in Motley's multiplexer. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Ferenc et al.'s building-block architecture of a multi-node circuit-and packet-switching system into Motley's telecommunication data compression apparatus and method with the motivation being implement circuit and packet-switched data multiplexing (col. 11, lines 3-6).

Furthermore, Motley in view of Ferenc et al. does not expressly disclose wherein the formatting means determines whether size of a section of the IP datagram is too large for insertion in the time slots based on the predicted available bandwidth. In an analogous art, LoGalbo et al. disclose wherein the formatting means determines whether size of a section of the IP datagram is too large for insertion in the time slots based on the predicted available bandwidth (page 5, paragraph [0050], lines 4-8).

One skilled in the art would have recognized the wherein the formatting means determines whether size of a section of the IP datagram is too large for insertion in the time slots based on the predicted available bandwidth, and would have applied LoGalbo et al.'s TDMA slot in Motley's multiplexer. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use LoGalbo et al.'s slot format and acknowledgment method for a wireless communication system into Motley's telecommunication data compression apparatus and method with the motivation being to split the IP packets into segments and are carried within multiple data block 210 that may span many TDMA slots 200 (page 5, paragraph 0050], lines 6-10).

For claims 2 and 8-9, Motley discloses wherein the multiplexing device further comprises memory means for storing at least one IP datagram to prevent congestion of datagrams caused by short-term variation of the available bandwidth (col. 12, lines 60-61).

For claims 6-7, Motley discloses telecommunication data compression apparatus and method, which multiplexing device comprises:

a compressor (figure 1, reference 1) adapted to provide a compressed data block representative of the various channels (col. 2, lines 41-42),

bandwidth assigned for a given transmission link being predetermined, prediction means for predicting the available bandwidth, known as the margin, taking account of the band occupied for the transmission of said compressed data block (figure 1, reference 3, col. 2, line 46).

However, Motley does not expressly disclose:

formatting means for subdividing and inserting at least one section of IP datagrams in of the time slots corresponding to the available bandwidth,

wherein the formatting means determines whether size of a section of the IP datagram is too large for insertion in the time slots based on the predicted available bandwidth.

In an analogous art, Ferenc et al. disclose formatting means for subdividing and inserting at least one section of IP datagrams in of the time slots corresponding to the available bandwidth (col. 11 lines 24-26).

One skilled in the art would have recognized the formatting means for subdividing and inserting at least one section of IP datagrams in of the time slots corresponding to the available bandwidth, and would have applied Ferenc et al.'s time slot formatter 231 in Motley's multiplexer. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Ferenc et al.'s building-block architecture of a multi-node circuit-and packet-switching system in Motley's telecommunication data compression apparatus and method with the motivation being implement circuit and packet-switched data multiplexing (col. 11, lines 3-6).

Furthermore, Motley in view of Ferenc et al. does not expressly disclose wherein the formatting means determines transmission size of TP datagram section based on negative

Art Unit: 2616

acknowledgment from said prediction means when the section is too large for insertion in the time slots based on the predicted available bandwidth. In an analogous art, LoGalbo et al. disclose wherein the formatting means determines transmission size of TP datagram section based on negative acknowledgment from said prediction means when the section is too large for insertion in the time slots based on the predicted available bandwidth (page 5, paragraph [0050], lines 4-8, and paragraph [0052], lines 6-3).

LoGalbo et al. disclose wherein a resizing means resizes IP datagram sections for transmission upon negative acknowledgement and adjusts output bit rate to suit the available bandwidth (page 5, paragraph [0050], lines 4-10 as set forth in claim 7).

One skilled in the art would have recognized the wherein the formatting means determines transmission size of TP datagram section based on negative acknowledgment from said prediction means when the section is too large for insertion in the time slots based on the predicted available bandwidth, and would have applied LoGalbo et al.'s TDMA slot into Motley's multiplexer. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use LoGalbo et al.'s slot format and acknowledgment method for a wireless communication system into Motley's telecommunication data compression apparatus and method with the motivation being to provide the confirmation bit 620 (page 6, paragraph [0052], lines 6-15).

10. Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motley (US 6,721,282) in view of Saidi et al. (US 7,106,738) further in view of Terho et al. (US 6,507,590).

As far as understood with respect to claims 4 and 13, Motley discloses telecommunication data compression apparatus and method, comprises:

data decompression means for reconstituting active and static channels from the compress data block (figure 1, col. 2, lines 41-49).

However, Motley does not expressly disclose deformatting means for extracting the IP datagram sections from a frame comprising data from a mobile telecommunication network and the at least one section of the IP datagrams and concatenating them in order to direct the IP datagram sections to the Ethernet network. In an analogous art, Saidi et al. disclose deformatting means for extracting the IP datagram sections and concatenating them in order to direct the IP datagram sections to the Ethernet network (figure 12, col. 14, lines 30-36).

One skilled in the art would have recognized the deformatting means for extracting the IP datagram sections and concatenating them in order to direct the IP datagram sections to the Ethernet network, and would have applied Saidi et al.'s packet deformatter 130 in Motley's demultiplex. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Saidi et al.'s method and apparatus for high speed packet switching using train packet queuing and providing high scalability into Motley's telecommunication data compression apparatus and method with the motivation being to receive train packets via the input port 131, and extract each individual data packet that exists within the train packet, thereby restoring the data packets that were received by the packet formatters (col. 14, lines 33-36).

Furthermore, Motley in view of Saidi et al. does not expressly disclose a frame comprising data from a mobile telecommunication network and the at least one section of the IP datagrams. In an analogous art, Terho et al. disclose a frame comprising data from a mobile

Art Unit: 2616

telecommunication network and the at least one section of the IP datagrams (figure 7, col. 7, lines 41-45).

One skilled in the art would have recognized the frame comprising data from a mobile telecommunication network and the at least one section of the IP datagrams, and would have applied Terho et al.'s frame 61 of a GSM radio telephone network in Motley's demultiplex. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Terho et al.'s method of data transfer and data interface unit into Motley's telecommunication data compression apparatus and method with the motivation being inserted data packet 53 of an Ethernet™ LAN into a data packet 58, it then being inserted into one or more RLP frames 61 of a GSM radio telephone network (col. 7, lines 41-45).

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Motley (US 6,721,282) in view of Ferenc et al. (US 4,962,497) further in view of Saidi et al. (US 7,106,738).

For claim 5, Motley discloses a multiplexing/demultiplexing system comprising:

a demultiplexing device adapted to demultiplex a compressed data block comprising a compressed block and at least one IP datagram section, wherein the demultiplexing device comprises:

deformatting means for extracting the IP datagram sections, and concatenating the IP datagram sections in order to direct them to the Ethernet network; and

data decompression means for reconstituting active and static channels from the compressed data block (col. 2 lines 41-49).

However, Motley in view of Ferenc et al. does not expressly disclose deformatting means for extracting the IP datagram sections, and concatenating them in order to direct the IP datagram

Art Unit: 2616

sections to the Ethernet network. In an analogous art, Saidi et al. disclose deformatting means for extracting the IP datagram sections, and concatenating them in order to direct the IP datagram sections to the Ethernet network (figure 12, col. 14 lines 30-36).

One skilled in the art would have recognized the deformatting means for extracting the IP datagram sections, and concatenating them in order to direct the IP datagram sections to the Ethernet network, and would have applied Saidi et al.'s packet deformatter 130 in Motley's demultiplex. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Saidi et al.'s method and apparatus for high speed packet switching using train packet queuing and providing high scalability in Motley discloses telecommunication data compression apparatus and method with the motivation being to receive train packets via the input port 131, and extract each individual data packet that exists within the train packet, thereby restoring the data packets that were received by the packet formatters (col. 14 lines 33-36).

Allowable Subject Matter

12. Claims 3 and 10-11 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TOAN D. NGUYEN whose telephone number is (571)272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

Art Unit: 2616

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on 571-272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. D. N./

Examiner, Art Unit 2616

/FIRMIN BACKER/

Supervisory Patent Examiner, Art Unit 2616